

### REMARKS

Applicants have amended claims 1, 12, and 15 to more particularly point out and distinctly claim the subject matter which they regard as their invention. Support for the amendments can be found in the specification, page 13, lines 1-6. The amendment to claim 1 has necessitated cancellation of claim 2. Applicants have also amended claims 3, 12, and 13 to promote clarity. No new matter has been introduced by the amendments.

Upon entry of the above amendments, claims 1 and 3-16 will be pending and under examination. Reconsideration of this application, as amended, is requested in view of the following remarks.

#### Rejection under 35 U.S.C. § 112, second paragraph

The Examiner rejects claim 2 on the ground that it is indefinite. Applicants have cancelled this claim.

#### Rejection under 35 U.S.C. § 112, first paragraph

The Examiner rejects claims 1 and 3-16 for lack of enablement. More specifically, he asserts that "the specification, while being enabling for the concentration ranges of [a] thermally conductive filler containing 5 to 800 parts by weight, does not reasonably provide enablement for the thermally conductive filler exceeds 800 parts by weight." See the Office Action, page 2, lines 8-11.

Applicants have amended independent claims 1, 12, and 15 to include a concentration range of the thermally conductive filler, i.e., 5-800 parts by weight. As correctly pointed out by the Examiner, the specification provides adequate enablement for an article containing a thermally conductive filler within this range. Applicants therefore request that this rejection be withdrawn.

Rejections under 35 USC § 102(b)/103(a)

The Examiner rejects claims 1, 7, 9, and 10 as anticipated by or, in alternative, as obvious over, Tobita et al., U.S. Patent Application Publication 20020090501 (Tobita). Claim 1, the independent claim, will be discussed first.

Claim 1, as amended, covers an article formed by molding a thermally conductive composition including (1) 100 parts by weight a liquid crystalline polymer, and (2) 5 to 800 parts by weight a thermally conductive filler.

Tobita discloses a polymer sheet including a polymer matrix and a thermally conductive filler. The polymer matrix can be one of the following four polymer substances: thermoplastic resin, thermoplastic elastomer, thermosetting resin, or vulcanized rubber. See paragraph 0042. Tobita lists more than ten examples for each of the four polymer substance (liquid crystalline polymer is an example of thermoplastic resin). See paragraphs 0043-0046.

Thus, Tobita's polymer sheet contains a polymer matrix selected from a large number of polymer substances, including a liquid crystalline polymer. By contrast, claim 1 is limited to a liquid crystalline polymer. Thus, the scope of claim 1 is much narrower than that taught in Tobita. More or at least equally important, Tobita does not specify the weight ratio between the thermally conductive filler and the liquid crystalline polymer in a polymer sheet, while claim 1 recites that the ratio of a thermally conductive filler and a liquid crystalline polymer is 5-800 parts:100 parts. In other words, Tobita teaches a much broader range than that covered by claim 1.

Clearly, claim 1 covers a narrow range and Tobita teaches a broad range.

Applicants would like to bring to the Examiner's attention the following statement set forth in MPEP 2131.03:

In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an anticipation under the statute." ... If the claims are directed to a narrow range, the reference teaches a broad range, and there is evidence of unexpected results within the claimed narrow range, it may be reasonable to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute an anticipation of the claims. The

unexpected results may also render the claims unobvious (emphases added).

According to the specification, the claimed article, which contains 5 to 800 parts a thermally conductive filler and 100 parts a liquid crystalline polymer, has at least one unexpected advantage. Specifically, the specification indicates that (1) a comparative article containing less than 5 parts has an undesirably low thermal conductivity; and (2) another comparative article containing more than 800 parts a thermally conductive filler has an undesirably high viscosity and contains air bubbles, which are also not desired. See page 13, lines 1-19. In other words, the claimed article has the advantage of possessing a preferred higher thermal conductivity (as compared with the first comparative article) and has the advantage of possessing a preferred lower viscosity and contains fewer air bubbles (as compared with the second comparative article).

In sum, claim 1 is directed to a range of polymer substances much narrower than that taught in Tobita in both kinds and contents, and there is evidence of an unexpended advantage(s) within the narrower range. According to the above-quoted statement from MPEP 2131.03, claim 1 is clearly not anticipated or rendered obvious by Tobita.

For the same reasons set forth above, claims 7, 9, and 10, dependent from claim 1, are also not anticipated by or rendered obvious over Tobita.

### CONCLUSION

Applicants submit that rejections asserted by the Examiner have been overcome, and that claims 1 and 3-16, as pending, define subject matter that is novel and unobvious over the cited prior art. Applicants respectfully request that all pending claims be allowed.

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Respectfully submitted,

Date: \_\_\_\_\_

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